Electric Vehicle Service and Equipment Provider Coalition
Illinois Commerce Commission
Initiative on Plug-In Electric Vehicles
August 15, 2011

Request for Supplemental Comments

The Electric Vehicle Service and Equipment Provider (EVSEP) Coalition including Better Place, Coulomb Technologies and ECOtality appreciate the opportunity to provide supplemental comments to the following issues in response to the Illinois Commerce Commission's ("Commission") request focusing on the following issues:

- The appropriate regulatory paradigm (if any) for private and public charging stations.
- In order to facilitate the charging of electric vehicles that provides the maximum societal environmental and economic benefits, what modifications (if any) should be made to existing utility rates? In addition, what metering options and charges should be considered while taking into account the existence of competitive retail suppliers?
- What cost causation and rate design modifications will be required to handle distribution upgrades for increased penetration of higher voltage at-home charging?
- Which costs, if any, should be socialized and why (rationale, benefits, etc.)? Assuming there are costs to be socialized, what are the proper methods for such allocation?

I. Introduction

The Coalition applauds the Illinois Commerce Commission for its efforts to prioritize and clearly define the most critical and time sensitive issues in the development of the plug-in electric vehicle (PEV) market in Illinois. The Coalition would like to clarify that we do not meet the definition of an alternative retail electric supplier pursuant to Illinois Public Utilities Code Section 16-102. Although our business models differ, we are not resellers of electricity and should not be regulated as public utilities. All three companies are customers of the utilities and independent providers that develop and deploy the infrastructure and services to enable PEV adoption in a safe and reliable manner. We recommend that the Illinois make an affirmative determination to clarify there is a competitive market in PEV services and that providers of EV services and equipment will not be regulated as public utilities in the market. To determine issues relevant to this initiative a rulemaking process or docketed proceeding would be appropriate. Possible required legislative action that would promote competitive EV charging services and create certainty in the marketplace for investment and innovation in these services would include legislation identifying that third party charging providers who deliver electricity solely as a transportation fuel will not be subject to be regulated as a public utility or an alternative retail electric supplier under Public Utilities Code Section 16-102.

II. Regulatory Paradigm

The Coalition encourages the Commission to support a competitive market in PEV services and preserve consumer choice, while ensuring grid reliability and minimal costs to ratepayers in supporting early PEV adoption. Clear rules and competition in the early market are absolutely critical to driving the type of investment and innovation required to encourage consumers and fleets to embrace PEVs as an alternative to gasoline cars. To create a competitive marketplace for PEVs in Illinois, it will be essential to establish a regulatory framework that encourages the principles of consumer choice and competitive neutrality. Illinois has much to gain from establishing a competitive EV services market, which will, in turn, leverage private capital to deploy charging infrastructure, and in which consumers can ultimately choose the most attractive charging services option for their needs. A dynamic EV services market in which third party services providers, utilities and automakers collaborate to deliver EV services will catalyze mass market adoption of EVs. The industry has been proactive and a leader in developing smart charging capabilities and will continue to create products and services that will enable interconnectivity with the grid, load management solutions and interoperability among providers.

III. Rates and Metering Considerations

Given the early stages of the PEV market, it may be premature to develop new rates for PEV charging. Instead, the PUC should focus on developing principles for rate design that will appropriately balance the need to incentivize PEV adoption with the need for load management and cost allocation related to PEVs. Unless the current rate structures will act as a disincentive to PEV adoption, we recommend that the PUC focus on understanding the early PEV market and revisit any new rate design decisions in 2013-2014

There are several EV pilot projects underway across the country (i.e. The EV Project, ChargePoint America, etc) that will inform whether current rates are sufficient and what rate mechanisms might be most effective at guiding end-user behavior. Revenue allocation and rate design are crucial issues that can, for better or worse, have a significant impact on the PEV market. Properly designed rates will reflect state policies favoring the development of an expanded PEV market in Illinois. PEV rate design decisions will also affect the level of consumer choice in PEV services, and the degree to which market participants will have an incentive to innovate and offer services designed to manage PEV charging for the benefit of the grid. The Commission should be guided in revenue allocation and rate design decisions by a goal of fostering competition in the provision of EV charging services and ensuring a level playing field with utilities, while reflecting the costs of providing electricity during different times under a TOU pricing structure. At this early stage of the market, we encourage the Commission to carefully consider the effect of cost allocation and rate design approaches on PEV adoption. The Commission should establish objectives that reflect state policy priorities, and develop rates that will maximize flexibility for innovation in PEV charge management and mobility services. For example, the recovery of EVSE costs (or a return) by the utility would not be through its general service or EV rates and tariffs.

Given the objectives of providing for consumer choice in metering options and enabling cost-effective alternatives that have the greatest potential to minimize barriers to PEV adoption, we encourage the Commission to create a near-term timeline and direct utilities to develop a sub-metering protocol that will make it possible to utilize embedded, revenue-grade metering in the EVSE. To maximize flexibility and cost-effectiveness, the Commission should support meter ownership by whichever entity owns and operates the EVSE. While it is typical for the utility to own the meter, it is not clear that utility ownership of an EVSE meter or sub-meter is necessary or desirable for PEVs. To determine a boundary, the Commission should look at cost-effectiveness to the EVSE owners and ensuring a competitive market in EV services for customers. To avoid long-term uncertainty regarding the viability of sub-metering or the specific technology implications of the sub-metering protocol would create challenges for infrastructure deployment and unnecessary additional costs to consumers a deadline should be established identifying this as a viable option. The purpose of sub-meter protocol is to enable billing-grade sub-metering for PEVs, which enables both direct PEV load management and services. Subtractive billing must be likewise required to ensure the benefits of sub-metering can be enabled. It would be counterproductive to embark on technical and metering definition of a sub-metering protocol absent any clear guidance that this functionality will be supported by utilities for billing and load management purposes. We request that the Commission clearly define a timetable and pathway for the utilities to enable subtractive billing that is aligned with the development of a sub-metering protocol.

In summary, in making revenue allocation and rate design decisions, the Commission must place the goal of competitive neutrality high on its list of guiding principles

IV. Rate Design Modifications

In the early market, the Coalition submits that new rates may not be warranted at this time, but that PEV-related rates should be revisited once the early market develops (i.e. in 2013-2014) utilizing data from current EV pilot projects. EVSEPs include a wide variety of companies and organizations, from apartment building owners, to employer parking lots, to municipalities; to companies whose core business is providing charging services. EVSEPs should not be placed on new special rates at this time. This will preserve a level playing field in both the residential and non-residential settings. TOU rates however could serve as the foundation for cost-recovery and price signals for load management. It is very important, however, that EVSEPs not be required to directly pass through TOU rates or otherwise be subject to customer pricing requirements by the Commission. TOU rates in the early market will provide the appropriate incentives for EVSEPs and customers and will reflect the costs to the electricity grid.[1] The Coalition supports that PEV load should be treated as any other new load. In particular, the Commission should not allow utilities to include new demand charges in rates (whether residential or non-residential), since this could adversely affect PEV adoption. We encourage the Commission to explicitly clarify that under any existing tariff rules and rate schedules, EVSEPs will have access as retail customers to PEV rates and that such service may not additionally restrict, prescribe or limit services beyond the meter. We encourage the Commission to instruct utilities to conform existing tariff schedules, including that any additional obligations or restrictions designed for other customers do not apply to EVSEPs. Prior to revisiting rates in the 2013-2014 timeframe, one issue the Commission should study and consider is the impact of demand charges in commercial electricity tariffs on the deployment of publicly available charging infrastructure. This issue is important, given the desire for both cost-recovery and clear off-peak price signals, and the need to encourage deployment of public infrastructure to

[1] Proposed Phase 2 Decision Establishing Policies to Overcome Barriers to Electric Vehicle Deployment and Complying with Public Utilities Code Section 740.2, pg. 19-20, March 15, 2011.

support PEV adoption. As part of the EV Project, ECOtality will be collecting data on the deployment of DC fast charging and the impact that relevant commercial rate structures, which trigger demand charges, are having at those locations.

V. Socialized Cost Allocation

Recognizing and identifying the cause and benefits of system upgrades will be challenging in the near term. For any cost-benefit analyses, it is vital to segregate private costs and benefits from public costs and benefits. As the PEV market develops, the apportionment of costs between the PEV and non-PEV owners will be important to monitor – identifying at what point in the market's development will the benefits warrant spreading infrastructure costs to the greater population. Generally, cost responsibility should be apportioned so that on a net present value basis, non PEV-owning ratepayers will not be harmed by bearing the costs of PEV-related infrastructure. In the early market, PEV consumers should bear the costs associated with their use of PEV charging.

Additionally, charging load should be treated like every other load and standard allowances should apply. Although a majority of charging may occur at home, many PEVs in urban areas will also be charged at publicly available charging locations. Public infrastructure is critical to address range anxiety offering an additional layer of infrastructure to support PEVs. Policies should address residential, public and commercial charging in order to achieve the overall goal of encouraging the deployment of electric vehicles. For charging infrastructure, the highest priority is to enable easy, low-cost home charging. It is critical, however, that this paradigm be applied consistently to all classes of customers installing EVSE. EVSE installation processes and the associated costs are potential hurdles for the widespread adoption of grid-connected vehicles. Overall, socialized cost allocation for PEVs must recognize that adding PEV load, unlike adding a Plasma TV or an air conditioner, is a net emission reducing action whereby the PEV load is causing reduced emissions to transportation. Any socialized cost allocation should recognize the overall emissions benefit of incentivizing PEV adoption.